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REMARKS

Claim Rejections – 35 USC § 103(a)

In replying to the Examiner's §103 rejections, applicant shall refer to the Lin reference introduced by the Examiner as "Lin 02/1998" and introduces the following evidence by way of an Information Disclosure Statement: Xiaohan Zhu and Bill Lin, "Compositional Software Synthesis of Communicating Processes," IEEE International Conference on Computer Design, Oct. 1999. (referred to herein as "Lin 10/1999").

Applicant emphasizes that Lin 10/1999 is not prior art, but is being introduced solely as evidence to rebut the Examiner's arguments of obviousness. Applicant requests Examiner carefully review Lin 10/1999 and indicate such consideration of it by initialing enclosed PTO/SB/08B.

The Examiner continues to reject claims 1-12 as obvious over the combination of Lin 02/1998 and Nilsen. Applicant respectfully submits that claim 1, for at least the following reasons, traverses the Examiner's rejections.

In an argument of obviousness there must be present a teaching to combine the references, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. For example, MPEP 2143.01 ("Suggestion or Motivation To Modify the References") states:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

The Examiner, however, has based his combination on the following argument:

It would have been obvious to one of ordinary skill in the art to combine Lin with Nilsen since the method of combining concurrent control flow graphs into sequential control flow graphs disclosed by Lin takes into account context switching between separate processes or threads, but fails to specify exactly how the code translation is generated, or what features are implemented therein. Rather, the preliminary ideas behind the construction of Petri net representations of sequential control flow graphs is disclosed, while features related to scheduling and optimization are left up to the developer (pg. 215, "It is not the intention of this paper to

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discuss in details the different possible scheduling heuristics. The interested reader can refer to [4, 6] for a survey of example techniques"). The papers that Lin refers to presumably offer several scheduling techniques that can be used for the sequential control flow graph, yet the possible scheduling techniques are not limited to those references. Nilsen offers a technique for protecting the state of a thread during a context switch or a preemption by saving the information related to the suspended thread in a state variable and utilizing the information in the state variable upon resumption of the stopped thread, which would allow the thread and its shared resources to remain in a consistent state during any context switches or synchronization.

(Emphasis added.)

The Examiner is factually incorrect when he states that Lin 02/1998 "fails to specify exactly how the code translation is generated." As applicant has explained in his previous response, Lin 02/1998 teaches code generation according to a specific technique: the use of a single program counter. It is within this basic framework, of having a single program counter available for code generation, that Lin considers scheduling alternatives.

Therefore, the discussion of scheduling in Lin 02/1998, referred to by the Examiner, provides no "teaching, suggestion, or motivation" to combine or modify the references he cites, in the references he cites, as is required for an obviousness argument by MPEP 2143.01. To combine Lin 02/1998 with Nilsen in the manner suggested by the Examiner "would change the principle of operation" of Lin 02/1998, and this is prohibited by MPEP 2143.01 (see "THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE").

Lin 10/1999 is clear evidence that the "knowledge generally available to one of ordinary skill in the art" (MPEP 2143.01) did not include the ability to combine Lin 02/1998 and Nilsen. Lin 10/1999 differs from Lin 02/1998 in its use of thread-dedicated program counters, yet the two papers are separated by 20 months of research. The large time gap between the two papers, and the fact that the thread-dedicated technique was submitted for publication, are strong evidence that Bill Lin himself regarded the use of thread-dedicated program counters as a significant advance over his earlier work. In addition, the fact that Lin 10/1999 was accepted for publication is strong evidence that the committee that accepted the paper, for the International Conference on Computer Design, also regarded Lin 10/1999 as a significant advance over Lin 02/1998 and an above-ordinary contribution to the art.

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Applicant also respectfully points out that Nilsen relates to the implementation of virtual machines and has no suggestion that its teachings could be utilized for the Lin 02/1998 method.

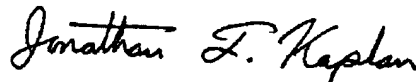
Since claims 2-9 are dependent on claim 1, claims 2-9 are allowable for at least the same reasons. Since claims 10-12 are similar to claim 1, with the exception of their data processing system, computer program product and computer data signal form, such claims are also allowable for at least the same reasons.

Summary

Applicant respectfully submits that all 35 USC § 103 rejections have been traversed. Therefore, applicant requests a Notice of Allowance be granted.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to Deposit Account No. 502584 referencing docket number 06816.0158.

Respectfully submitted,



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